

CLAIMS

1. Distributor - applicator (1) mobile in the axial direction (10) designed to contain a cosmetic (5), typically a mascara, comprising a body (2) forming a typically cylindrical and longitudinal cavity (20) with a height H along its axial direction (21) containing the said cosmetic (5), and in which there is an opening, the said body (2) being provided with a lateral skirt (24), fixed with a rim (243) or a head (22) at its so-called top end containing a typically threaded neck (220) surrounding the said opening (23), and typically forming a bottom (25) at its so-called bottom end, and an applicator (3) comprising a typically threaded cap (30) forming a means of gripping the said applicator (3) and intended to cooperate with the said rim (243) or the said neck (220) of the said head (22), a rod or a longitudinal support (31) and an application means (32), typically a brush (320) consisting of one or several rows of bristles, the said rod (31) being fixed to the said cap (30) at one of its ends, and fixed to the said application means (32) at its other end, such that the said application means (32), typically at the contact of the said product (5) typically when the said cap closes off the said opening (23) of the said body (2), collects some of the said product (5) and after separation of the said applicator (3) from the said body (2), typically including an axial translation, enables application of

the said collected product on a support, and characterised in that:

a) the said body (2) comprises a means of forming an axial partition in the said cavity (20) so as to form
 5 an axial sequence of N staged compartments (200) in the said cavity (20), denoted C_1 to C_N , where N typically varies from 2 to 4, each compartment C_i with height H_i containing the said cosmetic(s) P_i , the said cosmetic(s) P_i typically being different from the said cosmetic(s) P_{i+1}
 10 in compartment C_{i+1} located above it, and the said cosmetic P_i being a typically fluid product,

b) the said means of forming the said axial partition comprises N-1 separation means S (4, 4'), the said separation means S (4, 4') being denoted S_i , where i
 15 is equal to not more than N-1, between two successive compartments C_i and C_{i+1} ,

c) each compartment C_i , where $i > 1$, comprising a volume forming a storage means for the said product P_i , and also a complementary or free volume (27) forming a
 20 communication means, such that the said application means (32) can typically access each of the said compartments C_i , where $i' < i$, in order to collect the said corresponding products $P_{i'}$.

2. Distributor - applicator according to claim 1 in
 25 which the said cavity (20) comprises two successive compartments (200), a lower compartment C_1 with height H_1 containing the product P_1 , the said product P_1 being a fluid product, and a top compartment C_2 with height H_2 containing the product P_2 , the said lower compartment

being contiguous with the said bottom at its lower part, the top of the said upper compartment C_2 being contiguous with the said rim (243) or the said neck (220).

3. Distributor - applicator according to either
5 claim 1 or 2, in which the said separation means S_i (4, 4') typically comprises a central orifice O_i (40) forming the said communication means between the compartments C_i and C_{i+1} and forming an axial passage for the said application means (32), the said separation means S_i (4,
10 4') delimiting the said compartment C_i near the top and thus forming a partition between the said compartments C_i and C_{i+1} of the said cavity (20).

4. Distributor - applicator according to claim 3, in which the said separation means S_i (4, 4') of the
15 compartment C_i forms a support for product(s) P_{i+1} contained in the adjacent compartment C_{i+1} and located axially above compartment C_i .

5. Distributor - applicator according to either claim 3 or 4 in which the said separation means S_i (4, 4')
20 of compartment C_i comprises a typically radial projection or part (41, 42, 460).

6. Distributor - applicator according to claim 6 in which the said projection or radial part (41, 42, 460) forms a sufficiently large radial projection (42) so that
25 the said typically central orifice O_i (40) may be filled in or closed off by the said application means (32).

7. Distributor - applicator according to any one of claims 3 to 6 in which the said means of separation S_i (4, 4') of compartment C_i comprises a part forming a radial

projection (41) and a part forming a vertical or inclined projection (43), so as to form firstly a secondary cavity (26) typically capable of containing a fluid product, and secondly the said complementary or free volume (27) forming the said communication means.

8. Distributor - applicator according to any one of claims 3 to 7, in which the said separation means S_i (4, 4') for $i = 1$ include a top central duct (44'), typically provided with a flared top part (440') and / or a bottom part through which the said application means can pass, the said top central duct (44') delimiting the inside of the said complementary or free volume (27) forming the said communication means.

9. Distributor - applicator according to either claim 7 or 8, in which the said vertical projection or the said duct comprises or forms a perforated tubular central part (44), so as to form the said secondary cavity (26) that will typically contain the said product P_2 , and such that the said application means (32) can collect the said product P_2 particularly during translation of the said application means in the said complementary or free volume (27).

10. Distributor - applicator according to claim 9 in which the said central open tubular part (44) comprises several axial rods (440) forming axial spaces (441) between them through which the said rows of bristles of the said brush (320, 320') are free to pass and so as to collect the said product P_2 .

11. Distributor - applicator according to any one of claims 3 to 10, in which the said orifice O_i (40) for $i = 1$ comprises or forms a non-return valve or flap (6), the said valve or the said flap (6) being open typically when the said applicator (3) cooperates with the said body, the said application means then typically being in contact with the said product P_i for $i = 1$, and closed when the said applicator (3) is separated from the said body (2).

12. Distributor - applicator according to any one of claims 3 to 11 in which the said separation means S_i (4, 4') for $i = 1$ forms or includes an elastic membrane comprising adjacent rims or lips (60) delimiting the said orifice O_i for $i = 1$, like a valve, the said lips (60) being capable of elastically separating during the said axial displacement of the said applicator (3) so as to enable the said application means (32) to pass through the said orifice (40) so as to prevent or limit mixing of the said products (5) in two different compartments (200).

13. Distributor - applicator according to any one of claims 1 to 12, in which the said separation means S_i (4, 4') forms or comprises a single-piece part (45) with the said body (2).

14. Distributor - applicator according to any one of claims 1 to 13, in which the said separation means S_{i-1} (4, 4') forms or comprises an add-on part (46, 46') in the said cavity (20), typically fixed to the said body (2) by assembly or by click-fitting.

15. Distributor - applicator according to any one of claims 3 to 14, in which the said neck (220) and / or the said orifice O_i (40), typically for $i = 1$, comprises or forms a means (8) of wiping the said application means (32), so as to remove the excess amount of at least the said product P_i , typically the fluid product P_1 for $i = 1$.

16. Distributor - applicator according to any one of claims 1 to 15, in which the said application means (32), typically a brush (320, 320'), has a circular section, the said section being taken in a plane perpendicular to the said axial direction (10, 21) such that the said applicator (3) does not need to be oriented with respect to the said body (2) during the said translation.

17. Distributor - applicator according to any one of claims 1 to 16, in which the said application means (3) has a non-circular section S , and a shape factor L/l equal to at least 2, where L and l are the largest and the smallest dimensions respectively, the said section being taken in a plane perpendicular to the said axial direction (10, 21) such that all or part of the said translation requires relative orientation of the said applicator (3) with respect to the said body (2).

18. Distributor - applicator according to either claim 16 or 17, in which the said section S of the said application means (3) and the said orifice O_i (40) of the said separation means (4, 4') are geometrically similar.

19. Distributor - applicator according to any one of claims 1 to 18 in which the said applicator (3) comprises a single application means A (32), the said rod (31)

being sufficiently long so that the said application means (32) is in contact with the said product P_1 contained in compartment C_1 particularly when the said cap (30) closes off the said opening (23) of the said body
5 (2).

20. Distributor - applicator according to claim 19 in which the height of the said application means A (32) is typically equal to approximately H_1 , and fills in or closes off the said orifice O_1 .

10 21. Distributor - applicator according to any one of claims 1 to 18 in which the said applicator (32) comprises a single application means A, with a height typically greater than H_1 , so that it can come into contact with the said product P_1 contained in the
15 compartment C_1 and with the said product P_2 contained in the compartment C_2 when the said cap closes off the said body, so as to have a zone Z_e called the remote zone on the application means after the said separation, including collected amounts of products P_1 and P_2 , and a
20 zone Z_p called the near zone containing collected products P_2 only.

22. Distributor - applicator according to any one of claims 1 to 18 in which the said applicator comprises at least two application means A_i (32), typically two
25 separate brushes (320, 320') mounted in series on the said rod (31) and possibly as many application means A_i as there are separate compartments A_1 and A_2 and typically two separate application means A_1 and A_2 , the said application means A_1 being in contact with the said

product P_1 contained in compartment C_1 when the said cap (30) closes off the opening (23) of the said body (2), and the said application means A_2 being in contact with the said product P_2 contained in the compartment C_2 when
5 the said cap closes off the opening (23) of the said body (2).

23. Distributor - applicator according to claim 22 in which the said separate application means A_i (32) have an increasing section in the direction from A_i to A_{i+1} ,
10 such that each application means A_i only collects the product(s) P_i contained in the corresponding said compartment C_i .

24. Distributor - applicator according to claim 22 in which the said applicator (3) comprises two axially
15 separate application means A_1 and A_2 , one forming a brush (320) based on bristles, and the other (321) not forming a brush and comprising a material, typically divided or cellular, capable of collecting a solid or a liquid.

25. Distributor - applicator according to any one of
20 claims 1 to 24 in which the said rod (31), or possibly the said application means (32), cooperates with the said separation means (4, 4'), possibly due to a means (33) fixed to the said rod (3) or due to a means (6) fixed to the said separation means (4, 4') designed to close off
25 the said orifice (40) in order to make at least one compartment (200) and typically the said compartment C_1 leak tight, when the said cap (30) closes off the opening (23) of the said body (2).

26. Distributor - applicator according to any one of claims 1 to 25 in which the said head (22) and / or the said bottom (25) of the said body (2) form removable parts (22', 25') so that the said separation means S_i (4, 5 4') and / or the said products P_i can enter into the said cavity (20).

27. Distributor - applicator according to any one of claims 1 to 26 in which the said body (2) and the said separation means are formed by axial assembly, typically 10 by click-fitting or by gluing or heat sealing, of at least two modular body portions (7) and (7'), one comprising the said bottom (25) and the other comprising the said opening (23).

28. Distributor - applicator according to any one of 15 claims 1 to 27 in which all or some of the said body (2) is formed by a typically transparent moulded plastic material.

29. Use of the distributor - applicator according to one of claims 1 to 28 for packaging several cosmetics P_i , 20 at least one of the products P_i being a fluid product.

30. Use according to claim 29 in which the said fluid product is a make-up product, and typically a mascara.

31. Use according to either claim 29 or 30, in which 25 the said fluid product is packaged in the said compartment (200) C_1 .

32. Use according to any one of claims 29 to 31, in which the said products P_i (5), typically for $i > 1$, comprise typically agglomerated solid products (51), the

said solid products (51) typically forming annular or toroidal bodies (510), comprising a central opening (511) through which the said application means (32) can pass.